

## INTEROFFICE CORRESPONDENCE

DATE: October 11, 1990

TO: Donald R. Ferrier, Manager, Waste Operations, T130A

FROM: *R.T. Ogg* R.T. Ogg, Remediation Programs, T130B, x7079

SUBJECT: PRESENT LANDFILL CONTOURING

Recent analyses have indicated that the "Present Landfill," Operable Unit (OU) 7, Solid Waste Management Unit (SWMU) 114, regulated by the Resource Conservation and Recovery Act (RCRA) Subtitle C, Colorado Hazardous Waste Regulations 6 CCR 1007-3, is anticipated to reach "natural grade levels" of non-hazardous/sanitary waste within twelve to eighteen months. In July 1988, a RCRA Closure Plan was submitted to the Environmental Protection Agency (EPA) and Colorado Department of Health (CDH). However, the Interagency Agreement (IAG), supersedes the Closure Plan submitted in July 1988. In accordance with the IAG, "Phase I RFI/RI Work Plan" for the Present Landfill, SWMUs 114 and 203, was submitted to EPA and CDH in June 1990. The "draft" IAG Schedule for the Present Landfill activities is attached (Attachment 1).

On August 16, 1990, David Lam (EG&G Environmental and Waste Programs) requested a meeting and invited Environmental Restoration Programs to attend. Primary topics of the meeting Included:

- Mounding/contouring criteria for the Present Landfill,
- Present Landfill closure schedule,
- Completion of the new proposed landfill,
- Quantity of waste currently being disposed of at the Present Landfill,
- Space availability relative to natural grade elevations, and
- Shipping non-radioactive/non-hazardous waste offsite.

Upon request, the Environmental Restoration Program provided guidance and/or assistance for the above-referenced issues with an emphasis on "final contouring".

A regulatory analysis was conducted as a function of "mounding" practices at the Present Landfill, including assessment of 40 CFR Part 265 Subpart N, Landfills; Colorado Hazardous Waste Regulations 6 CCR 1007-3 Part 265 Subpart N, Landfills; and Colorado "Regulations Pertaining to Solid Waste Sites and Facilities." The objective of the regulatory assessment was to determine if mounding practices were permitted/acceptable in accordance with applicable regulations. Based on my evaluation of the regulations, there appear to be no indications that mounding is prohibited. Since there are no apparent regulatory constraints associated with mounding practices for landfills, the Remediation Programs Division, Permitting and Compliance Group,

ADMIN RECORD

A-DU07-000140

*U M*

REVIEWED FOR CLASSIFICATION/UCNI	
BY	G. T. Ostlick <i>STW</i>
DATE	7-12-93

will provide Waste Operations with a conceptual "contour model" of the Present Landfill as it may appear at closure.

Prior to initiating this exercise, some data will be required from Waste Operations. At a minimum, this data should include:

- A calculated volume of waste expected to be disposed of in the Present Landfill, and
- An approximate maximum vertical elevation with an estimated slope value.

The conceptual contour model is expected to be generated in approximately three phases:

- (1) The first model will reference the calculated vertical and horizontal elevations (x, y, and z values) for the total volume of waste anticipated to be disposed of at the Present Landfill in relation to natural grade.
- (2) The second phase will reference the vertical and horizontal elevations with a two-foot "interim RCRA cover." The interim RCRA cover is a function of differential settlement which is created from void space of waste.
- (3) The third phase will reference the vertical and horizontal elevations for the final RCRA cover. The final RCRA cover is generally three feet in thickness and composed of geosynthetic materials, clay, and soil. In general, after placement of the final layer of waste/daily soil cover, approximately 3-5 feet of additional height will be created from the interim and final RCRA covers.

During the interim, until data is received from Waste Operations, some assumptions will be made to expeditiously complete the contouring project. At the August 16, 1990, meeting, a weekly waste volume generation value was referenced as approximately 30 cubic yards of "dry" waste and 10 cubic yards of "wet" waste. Also, a Present Landfill site inspection and interviews with operators were conducted to obtain a general knowledge of waste capacity relative to grade levels and approximate height to be generated based on current waste disposal criteria and operation for approximately two years (an estimated schedule of the new proposed landfill opening). The operators of the Present Landfill indicated that an approximate height of 6-8 feet with a slope of approximately 5-10 degrees for 10 acres may be created based on the above referenced criteria. Although these values are general, I feel the operators' estimates are realistic, and therefore, may be used with some certainty.

Donald Ferrier  
October 11, 1990  
Page 3

An additional relevant issue associated with the contouring of the Present Landfill is "surface water run-off" management. The contours of the Present Landfill are anticipated to be designed to direct surface water run-off to the pond directly east of the landfill. The reasoning for designing the contours to meet this criteria is based on Colorado Hazardous Waste Regulations (CHWR) 6 CCR 1007-3 Part 265.302 (b) and (c), General Operating Requirements. Part 265.302 (b) states, "The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm." Part 265.302 (c) states, "Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or other wise managed expeditiously after storms to maintain design capacity of the system." In accordance with the above-referenced regulation, the pond east of the Present Landfill may be utilized as an collection system for surface water run-off.

However, designing contours to direct surface water to the eastern pond *may* create soil erosion problems on the easternmost landfill slope. Currently, the landfill slope angle is approximately 30-40 degrees, composed primarily of loose soils. For the contour system to operate and function with minimal effort, the eastern slope of the landfill will require stabilization to prevent soil erosion and consequently, to prevent waste from being exposed and transported from the landfill. It is recommended that a study be initiated to assess the soil erosion probability associated with directing surface water run-off to the eastern pond of the landfill and consequently, soil stabilization measures.

It is anticipated that a conceptual contour model will be completed and provided to you by October 22, 1990.

If you have any questions or comments pertaining to this matter, please contact me at x7079.

Encl: As stated

RTO:rsh

cc:

M.B. Arndt  
J.M. Barthel  
A.D. Berzins  
F.J. Blaha  
J.E. Evered  
J.R. Fitzsimmons  
M.J. Freehling

T.C. Greengard  
**T. Hummel**  
D.W. Lam  
D.J. Nickless - DOE  
L.C. Rock  
D.L. Shear